

Sequence Listing

<110> Desnoyers,Luc  
Eaton,Dan L.  
Goddard,Audrey  
Godowski,Paul J.  
Gurney,Austin L.  
Pan,James  
Stewart,Timothy A.  
Watanabe,Colin K.  
Wood,William I.  
Zhang,Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
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Gln  Thr  Gly  Gly  Leu  Pro  Pro  Asp  Cys  Ser  Lys  Cys  Cys  His  Gly
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Asp  Tyr  Ser  Phe  Arg  Gly  Tyr  Gln  Gly  Pro  Pro  Gly  Pro  Pro  Gly
              50              55              60

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Glu  Lys  Gly  Tyr  Pro  Gly  Ile  Pro  Pro  Glu  Leu  Gln  Ile  Ala  Phe
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Met  Ala  Ser  Leu  Ala  Thr  His  Phe  Ser  Asn  Gln  Asn  Ser  Gly  Ile
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Ala	Leu	His	Gly	Asp	His	Gln	Arg	Phe	Ser	Thr	Phe	Ala	Gly	Phe
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 35 40 45  
 Ser Leu Pro Gly Phe Lys Glu Ile Val Ser Arg Gly Val Lys Val  
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 Asp Tyr Leu Thr Pro Asp Phe Pro Ser Leu Ser Tyr Pro Asn Tyr  
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Gly His His Tyr	Gly Pro Ala Ser Pro	Gln Arg Lys Asp Ala Leu			
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His Gly Met Thr	Asp Ile Phe Trp Met	Asp Lys Val Ile Glu Leu			
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Asn Lys Tyr Ile	Ser Leu Asn Asp Leu	Gln Gln Val Lys Asp Arg			
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Gly Pro Val Val	Ser Leu Trp Pro Ala	Pro Gly Lys His Ser Glu			
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Arg Glu Gly Trp	Gln Arg Gly Trp His	Gly Tyr Asp Asn Glu Leu			
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Ser Asn Phe Arg	Ala Ala Pro Ile Arg	Ser Val Asp Val Tyr Asn			
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Val Met Cys Asn	Val Val Gly Ile Thr	Pro Leu Pro Asn Asn Gly			
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 His Cys Val Thr Thr Ala Thr Arg Val Leu Ser Asn Thr Glu Asp  
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<210> 18  
 <211> 273  
 <212> PRT  
 <213> Homo Sapien

<400> 18  
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 Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe  
 35 40 45  
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala  
 50 55 60  
 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala  
 65 70 75  
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro  
 80 85 90  
 Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg  
 95 100 105  
 Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln  
 110 115 120  
 Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp  
 125 130 135  
 Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln  
 140 145 150  
 Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp  
 155 160 165  
 Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr

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Glu Pro Glu Ile	Asn Pro Thr Ala Pro	Val Glu Lys Pro Tyr	Leu		
	185		190		195
Thr Asn Gln Pro	Gly Asp Thr His Gln	Asn Val Val Val Thr	Glu		
	200		205		210
Ala Gly Ile Ile	Pro Asn Leu Ile Tyr	Val Val Ile Pro Thr	Ile		
	215		220		225
Pro Leu Leu Leu	Leu Ile Leu Val Ala	Phe Gly Thr Cys Cys	Phe		
	230		235		240
Gln Met Leu His	Lys Ser Lys Gly Arg	Thr Lys Thr Ser Pro	Asn		
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Met Glu Val					

<210> 19  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 19  
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<210> 20  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 20  
 accacattct gatgggtgtc tcctgg 26

<210> 21  
 <211> 49  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 21  
 gggtccctac ctttaccagt ggaatgatga caggtgtaac atgaagcac 49

<210> 22  
 <211> 3824



<212> DNA  
<213> Homo Sapien

<400> 22

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<210> 23

<211> 571

<212> PRT

<213> Homo Sapien

<400> 23

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				20					25				30	

Val	Ala	Gln	Pro	Glu	Val	Asp	Thr	Thr	Leu	Gly	Arg	Val	Arg	Gly
				35					40				45	

Arg	Gln	Val	Gly	Val	Lys	Gly	Thr	Asp	Arg	Leu	Val	Asn	Val	Phe
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Leu Gly Ile Pro	Phe 65	Ala Gln Pro Pro	Leu Gly Pro	Asp Arg	Phe 75
Ser Ala Pro His	Pro 80	Ala Gln Pro Trp	Glu Gly Val	Arg Asp	Ala 90
Ser Thr Ala Pro	Pro 95	Met Cys Leu Gln	Asp Val Glu	Ser Met	Asn 105
Ser Ser Arg Phe	Val 110	Leu Asn Gly Lys	Gln Gln Ile	Phe Ser	Val 120
Ser Glu Asp Cys	Leu 125	Val Leu Asn Val	Tyr Ser Pro	Ala Glu	Val 135
Pro Ala Gly Ser	Gly 140	Arg Pro Val Met	Val Trp Val	His Gly	Gly 150
Ala Leu Ile Thr	Gly 155	Ala Ala Thr Ser	Tyr Asp Gly	Ser Ala	Leu 165
Ala Ala Tyr Gly	Asp 170	Val Val Val Val	Thr Val Gln	Tyr Arg	Leu 180
Gly Val Leu Gly	Phe 185	Phe Ser Thr Gly	Asp Glu His	Ala Pro	Gly 195
Asn Gln Gly Phe	Leu 200	Asp Val Val Ala	Ala Leu Arg	Trp Val	Gln 210
Glu Asn Ile Ala	Pro 215	Phe Gly Gly Asp	Leu Asn Cys	Val Thr	Val 225
Phe Gly Gly Ser	Ala 230	Gly Gly Ser Ile	Ile Ser Gly	Leu Val	Leu 240
Ser Pro Val Ala	Ala 245	Gly Leu Phe His	Arg Ala Ile	Thr Gln	Ser 255
Gly Val Ile Thr	Thr 260	Pro Gly Ile Ile	Asp Ser His	Pro Trp	Pro 270
Leu Ala Gln Lys	Ile 275	Ala Asn Thr Leu	Ala Cys Ser	Ser Ser	Ser 285
Pro Ala Glu Met	Val 290	Gln Cys Leu Gln	Gln Lys Glu	Gly Glu	Glu 300
Leu Val Leu Ser	Lys 305	Lys Leu Lys Asn	Thr Ile Tyr	Pro Leu	Thr 315
Val Asp Gly Thr	Val 320	Phe Pro Lys Ser	Pro Lys Glu	Leu Leu	Lys 330
Glu Lys Pro Phe	His 335	Ser Val Pro Phe	Leu Met Gly	Val Asn	Asn 345

His	Glu	Phe	Ser	Trp	Leu	Ile	Pro	Arg	Gly	Trp	Gly	Leu	Leu	Asp	350	355	360
Thr	Met	Glu	Gln	Met	Ser	Arg	Glu	Asp	Met	Leu	Ala	Ile	Ser	Thr	365	370	375
Pro	Val	Leu	Thr	Ser	Leu	Asp	Val	Pro	Pro	Glu	Met	Met	Pro	Thr	380	385	390
Val	Ile	Asp	Glu	Tyr	Leu	Gly	Ser	Asn	Ser	Asp	Ala	Gln	Ala	Lys	395	400	405
Cys	Gln	Ala	Phe	Gln	Glu	Phe	Met	Gly	Asp	Val	Phe	Ile	Asn	Val	410	415	420
Pro	Thr	Val	Ser	Phe	Ser	Arg	Tyr	Leu	Arg	Asp	Ser	Gly	Ser	Pro	425	430	435
Val	Phe	Phe	Tyr	Glu	Phe	Gln	His	Arg	Pro	Ser	Ser	Phe	Ala	Lys	440	445	450
Ile	Lys	Pro	Ala	Trp	Val	Lys	Ala	Asp	His	Gly	Ala	Glu	Gly	Ala	455	460	465
Phe	Val	Phe	Gly	Gly	Pro	Phe	Leu	Met	Asp	Glu	Ser	Ser	Arg	Leu	470	475	480
Ala	Phe	Pro	Glu	Ala	Thr	Glu	Glu	Glu	Lys	Gln	Leu	Ser	Leu	Thr	485	490	495
Met	Met	Ala	Gln	Trp	Thr	His	Phe	Ala	Arg	Thr	Gly	Asp	Pro	Asn	500	505	510
Ser	Lys	Ala	Leu	Pro	Pro	Trp	Pro	Gln	Phe	Asn	Gln	Ala	Glu	Gln	515	520	525
Tyr	Leu	Glu	Ile	Asn	Pro	Val	Pro	Arg	Ala	Gly	Gln	Lys	Phe	Arg	530	535	540
Glu	Ala	Trp	Met	Gln	Phe	Trp	Ser	Glu	Thr	Leu	Pro	Ser	Lys	Ile	545	550	555
Gln	Gln	Trp	His	Gln	Lys	Gln	Lys	Asn	Arg	Lys	Ala	Gln	Glu	Asp	560	565	570

Leu

<210> 24

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 24

gcaaagctct gcctccttgg cc 22

<210> 25  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 25  
gggtggactg tgctctaata gacgc 25

<210> 26  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 26  
cgtggcactg ggttgatc 18

<210> 27  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 27  
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<210> 28  
<211> 1342  
<212> DNA  
<213> Homo Sapien

<400> 28  
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aggtatttgc agttttgctg tctatagttc tatgcacagt aacgctattt 100  
cttctacaac taaaattcct caaacctaaa atcaacagct tttatgcott 150  
tgaagtgaag gatgcaaaag gaagaactgt ttctctggaa aagtataaag 200  
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<210> 29  
 <211> 209  
 <212> PRT  
 <213> Homo Sapien

<400> 29  
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 35 40 45  
 Ser Phe Tyr Ala Phe Glu Val Lys Asp Ala Lys Gly Arg Thr Val  
 50 55 60  
 Ser Leu Glu Lys Tyr Lys Gly Lys Val Ser Leu Val Val Asn Val  
 65 70 75  
 Ala Ser Asp Cys Gln Leu Thr Asp Arg Asn Tyr Leu Gly Leu Lys  
 80 85 90

Glu	Leu	His	Lys	Glu	Phe	Gly	Pro	Ser	His	Phe	Ser	Val	Leu	Ala	
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Phe	Pro	Cys	Asn	Gln	Phe	Gly	Glu	Ser	Glu	Pro	Arg	Pro	Ser	Lys	
				110					115					120	
Glu	Val	Glu	Ser	Phe	Ala	Arg	Lys	Asn	Tyr	Gly	Val	Thr	Phe	Pro	
				125					130					135	
Ile	Phe	His	Lys	Ile	Lys	Ile	Leu	Gly	Ser	Glu	Gly	Glu	Pro	Ala	
				140					145					150	
Phe	Arg	Phe	Leu	Val	Asp	Ser	Ser	Lys	Lys	Glu	Pro	Arg	Trp	Asn	
				155					160					165	
Phe	Trp	Lys	Tyr	Leu	Val	Asn	Pro	Glu	Gly	Gln	Val	Val	Lys	Phe	
				170					175					180	
Trp	Arg	Pro	Glu	Glu	Pro	Ile	Glu	Val	Ile	Arg	Pro	Asp	Ile	Ala	
				185					190					195	
Ala	Leu	Val	Arg	Gln	Val	Ile	Ile	Lys	Lys	Lys	Glu	Asp	Leu		
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<210> 30  
 <211> 24  
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 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 30  
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<210> 31  
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 <212> DNA  
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<220>  
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<400> 31  
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<210> 32  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 32  
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<210> 33



<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 33  
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<210> 34  
<211> 3721  
<212> DNA  
<213> Homo Sapien

<400> 34  
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<211> 888

<212> PRT

<213> Homo Sapien

<400> 35

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Pro	Val	Cys	Ala	Asn	Tyr	Ser	Ile	Asp	Thr	Leu	Gln	Pro	Val	Gly	155	160	165
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Gly	Asp	Arg	Pro	Thr	Leu	Arg	Thr	Val	Lys	His	Asp	Ser	Lys	Trp	215	220	225
Phe	Lys	Glu	Pro	Tyr	Phe	Val	His	Ala	Val	Glu	Trp	Gly	Ser	His	230	235	240
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Glu	Lys	Val	Val	Val	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	260	265	270
Val	Gly	Gly	Ser	Pro	Arg	Val	Leu	Glu	Lys	Gln	Trp	Thr	Ser	Phe	275	280	285
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Ile Pro Gly Ser	Ala Val Cys Ala Phe	Asp Leu Thr Gln Val Ala			
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Ala Val Phe Glu	Gly Arg Phe Arg Glu	Gln Lys Ser Pro Glu Ser			
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Ile Trp Thr Pro	Val Pro Glu Asp Gln	Val Pro Arg Pro Arg Pro			
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Leu Pro Asp Asp	Ile Leu Asn Phe Val	Lys Thr His Pro Leu Met			
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Asp Glu Ala Val	Pro Ser Leu Gly His	Ala Pro Trp Ile Leu Arg			
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Thr Leu Met Arg	His Gln Leu Thr Arg	Val Ala Val Asp Val Gly			
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Ala Gly Pro Trp	Gly Asn Gln Thr Val	Val Phe Leu Gly Ser Glu			
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Ala Gly Thr Val	Leu Lys Phe Leu Val	Arg Pro Asn Ala Ser Thr			
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Ser Gly Thr Ser	Gly Leu Ser Val Phe	Leu Glu Glu Phe Glu Thr			
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Tyr Arg Pro Asp	Arg Cys Gly Arg Pro	Gly Gly Gly Glu Thr Gly			
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Gln Arg Leu Leu	Ser Leu Glu Leu Asp	Ala Ala Ser Gly Gly Leu			
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Leu Ala Ala Phe	Pro Arg Cys Val Val	Arg Val Pro Val Ala Arg			
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Cys Gln Gln Tyr	Ser Gly Cys Met Lys	Asn Cys Ile Gly Ser Gln			
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Asp Pro Tyr Cys	Gly Trp Ala Pro Asp	Gly Ser Cys Ile Phe Leu			
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Ser Pro Gly Thr	Arg Ala Ala Phe Glu	Gln Asp Val Ser Gly Ala			
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Ser Thr Ser Gly	Leu Gly Asp Cys Thr	Gly Leu Leu Arg Ala Ser			
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Leu Ser Glu Asp	Arg Ala Gly Leu Val	Ser Val Asn Leu Leu Val			
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Pro	Gly	Asp	Arg	His	Arg	Gly	Cys	His	Ala	Arg	Pro	Gly	Thr	Asp	
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 Lys Phe Thr Ser Ser Pro Gly Glu Lys Val Phe Gln Val Lys Val  
 65 70 75  
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 Ser Tyr Lys Asn Leu Lys Val Glu Ile Lys Phe Gln Gly Gln His  
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 His Phe Pro Ala Val Asp Pro Glu Lys Ile Ala Val Glu Ile Pro  
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 Lys Arg Phe Gly Gln Arg Gln Ser Leu Cys His Tyr Thr Leu Lys  
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 Asp Asn Lys Val Tyr Ile Lys Thr His Gly Glu His Val Gly Phe  
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 Lys Met Pro Asp Val Glu Leu Phe Val Asn Leu Gly Asp Trp Pro

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Arg Leu Glu Leu	Val Lys Leu Ser Arg	Lys His Pro Glu Leu Ile			
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Lys Leu Lys Trp	Ala Lys Asp His Asp	Glu Glu Ala Lys Lys Ile			
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Ala Lys Ala Gly	Gln Glu Phe Ala Arg	Asn Asn Leu Met Gly Asp			
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Leu Gln Val Ser	Glu Pro Gln Ile Arg	Glu Gly Met Lys Arg Val			
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<400> 42  
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<212> PRT

<213> Homo Sapien

<400> 45

Met	Arg	Leu	Gly	Ser	Gly	Thr	Phe	Ala	Thr	Cys	Cys	Val	Ala	Ile	1	5	10	15
Glu	Val	Leu	Gly	Ile	Ala	Val	Phe	Leu	Arg	Gly	Phe	Phe	Pro	Ala	20	25	30	
Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro	35	40	45	
Ala	Pro	Glu	Pro	Ser	Ala	Gly	Ala	Ser	Ser	Asn	Trp	Thr	Thr	Leu	50	55	60	
Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala	65	70	75	
Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met	80	85	90	
Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe	95	100	105	
Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys	110	115	120	
Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg	125	130	135	
Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln	140	145	150	
Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr	155	160	165	
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr	170	175	180	

Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
				185					190					195
Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile
				200					205					210
Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser
				215					220					225
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp
				230					235					240
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg
				245					250					255
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly
				260					265					270
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val
				275					280					285
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro
				290					295					300
Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln					
				305					310					

<210> 46  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 46  
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<210> 47  
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 <212> DNA  
 <213> Artificial Sequence

<220>  
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<400> 47  
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<210> 48  
 <211> 38  
 <212> DNA  
 <213> Artificial Sequence

<220>  
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<400> 48

ccttcgggga ttcttcccgg ctcccgttcg ttcctctg 38

<210> 49

<211> 918

<212> DNA

<213> Homo Sapien

<400> 49

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ctgcgctctg cctgacaggg tcccaagccc tgcagtgcta cagctttgag 150  
cacacctact ttggcccctt tgacctcagg gccatgaagc tgcccagcat 200  
ctcctgtcct catgagtgtc ttgaggctat cctgtctctg gacaccgggt 250  
atcgcgcgcc ggtgaccctg gtgcggaagg gctgctggac cgggcctcct 300  
gcggggccaga cgcaatcgaa cccggacgcg ctgcgcgcag actactcggc 350  
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acgccctccc caacctgagc caagcaccgc acccgccgac gctcagcggc 450  
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caggtcccga cgagtccagt gtcaccagga ccagaccgcc tgcttccagg 550  
gcagtggcag aatgacagtt ggcaatttct cagtccctgt gtacatcaga 600  
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gcactacagg tcctggccct gtcctcccca gtcctcctgc tgggtggggct 800  
ctcagcatag accgcccctc caggatgctg gggacagggc tcacacacct 850  
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aaagtaagaa ttgcaaaa 918

<210> 50

<211> 251

<212> PRT

<213> Homo Sapien

<400> 50

Met	Ala	Met	Gly	Val	Pro	Arg	Val	Ile	Leu	Leu	Cys	Leu	Phe	Gly
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Ala	Ala	Leu	Cys	Leu	Thr	Gly	Ser	Gln	Ala	Leu	Gln	Cys	Tyr	Ser
				20					25					30

Phe	Glu	His	Thr	Tyr	Phe	Gly	Pro	Phe	Asp	Leu	Arg	Ala	Met	Lys
				35					40					45
Leu	Pro	Ser	Ile	Ser	Cys	Pro	His	Glu	Cys	Phe	Glu	Ala	Ile	Leu
				50					55					60
Ser	Leu	Asp	Thr	Gly	Tyr	Arg	Ala	Pro	Val	Thr	Leu	Val	Arg	Lys
				65					70					75
Gly	Cys	Trp	Thr	Gly	Pro	Pro	Ala	Gly	Gln	Thr	Gln	Ser	Asn	Pro
				80					85					90
Asp	Ala	Leu	Pro	Pro	Asp	Tyr	Ser	Val	Val	Arg	Gly	Cys	Thr	Thr
				95					100					105
Asp	Lys	Cys	Asn	Ala	His	Leu	Met	Thr	His	Asp	Ala	Leu	Pro	Asn
				110					115					120
Leu	Ser	Gln	Ala	Pro	Asp	Pro	Pro	Thr	Leu	Ser	Gly	Ala	Glu	Cys
				125					130					135
Tyr	Ala	Cys	Ile	Gly	Val	His	Gln	Asp	Asp	Cys	Ala	Ile	Gly	Arg
				140					145					150
Ser	Arg	Arg	Val	Gln	Cys	His	Gln	Asp	Gln	Thr	Ala	Cys	Phe	Gln
				155					160					165
Gly	Ser	Gly	Arg	Met	Thr	Val	Gly	Asn	Phe	Ser	Val	Pro	Val	Tyr
				170					175					180
Ile	Arg	Thr	Cys	His	Arg	Pro	Ser	Cys	Thr	Thr	Glu	Gly	Thr	Thr
				185					190					195
Ser	Pro	Trp	Thr	Ala	Ile	Asp	Leu	Gln	Gly	Ser	Cys	Cys	Glu	Gly
				200					205					210
Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala
				215					220					225
Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu
				230					235					240
Leu	Pro	Val	Leu	Leu	Leu	Val	Gly	Leu	Ser	Ala				
				245					250					

<210> 51  
 <211> 3288  
 <212> DNA  
 <213> Homo Sapien

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 gattgggaaa gggaaaggac aaaaaagacc cctgggctac acggcgtagg 100  
 tgcagggttt cctactgctg ttcttttatg ctgggagctg tggctgtaac 150  
 caactaggaa ataacgtatg cagcagctat ggctgtcaga gagttgtgct 200



tcccaagaca aaggcaagtc ctgtttcttt ttcttttttg gggagtgtcc 250  
ttggcagggtt ctgggttttg acgttattcg gtgactgagg aaacagagaa 300  
aggatccttt gtggtcaatc tggcaaagga tctgggacta gcagaggggg 350  
agctggctgc aaggggaacc agggtggttt ccgatgataa caaacaatac 400  
ctgctcctgg attcacatac cggaatttg ctcacaaatg agaaactgga 450  
ccgagagaag ctgtgtggcc ctaaagagcc ctgtatgctg tatttccaaa 500  
ttttaatgga tgatcccttt cagatttacc gggctgagct gagagtcagg 550  
gatataaatg atcacgcgcc agtatttcag gacaaagaaa cagtcttaaa 600  
aatatcagaa aatacagctg aagggacagc atttagacta gaaagagcac 650  
aggatccaga tggaggactt aacggtatcc aaaactacac gatcagcccc 700  
aactcttttt tccatattaa cattagtggc ggtgatgaag gcatgatata 750  
tccagagcta gtgttgga aagcactgga tcgggaggag caggagagac 800  
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gtttgcccag gctctgtatg agaccaggc tccagaaaac agccccattg 950  
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gcggaagtat cctattcatt ttttgatgcc tcagaaaata ttcgaacgac 1050  
ctttcaaate aatccttttt ctggggaaat ctttctcaga gaattgcttg 1100  
attatgagtt agtaaatct taaaaataa atatacaggc aatggacggt 1150  
ggaggccttt ctgcaagatg tagggtttta gtggaagtat tggacaccaa 1200  
tgacaatccc cctgaactga tcgtatcatc attttccaac tctgttgctg 1250  
agaattctcc tgagacgccg ctggctgttt ttaagattaa tgacagagac 1300  
tctggagaaa atggaaagat ggtttgctac attcaagaga atctgccatt 1350  
cctactaaaa cttctgtgg agaattttta catcctaatt acagaaggcg 1400  
cgctggacag agagatcaga gccgagtaca acatcactat caccgtcact 1450  
gacttgggga caccaggt gaaaaccgag cacaacataa cggctcctgg 1500  
ctccgacgtc aatgacaacg ccccgccctt caccacaacc tctacaccc 1550  
tgttcgtccg cgagaacaac agccccgcc tgcacatcg cagcgtcagc 1600  
gccacagaca gagactcggg caccaacgcc caggtcacct actcgtgct 1650



ccttagttta tataacttatt attttatcctt taagcatgct actttttactt 3150  
 ggccaatatt ttcttatggt aacttttgct gatgtataaa acagactatg 3200  
 ccttataatt gaaataaaat tataatctgc ctgaaaatga ataaaaataa 3250  
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<210> 52

<211> 800

<212> PRT

<213> Homo Sapien

<400> 52

Met	Ala	Val	Arg	Glu	Leu	Cys	Phe	Pro	Arg	Gln	Arg	Gln	Val	Leu	1	5	10	15
Phe	Leu	Phe	Leu	Phe	Trp	Gly	Val	Ser	Leu	Ala	Gly	Ser	Gly	Phe	20	25	30	
Gly	Arg	Tyr	Ser	Val	Thr	Glu	Glu	Thr	Glu	Lys	Gly	Ser	Phe	Val	35	40	45	
Val	Asn	Leu	Ala	Lys	Asp	Leu	Gly	Leu	Ala	Glu	Gly	Glu	Leu	Ala	50	55	60	
Ala	Arg	Gly	Thr	Arg	Val	Val	Ser	Asp	Asp	Asn	Lys	Gln	Tyr	Leu	65	70	75	
Leu	Leu	Asp	Ser	His	Thr	Gly	Asn	Leu	Leu	Thr	Asn	Glu	Lys	Leu	80	85	90	
Asp	Arg	Glu	Lys	Leu	Cys	Gly	Pro	Lys	Glu	Pro	Cys	Met	Leu	Tyr	95	100	105	
Phe	Gln	Ile	Leu	Met	Asp	Asp	Pro	Phe	Gln	Ile	Tyr	Arg	Ala	Glu	110	115	120	
Leu	Arg	Val	Arg	Asp	Ile	Asn	Asp	His	Ala	Pro	Val	Phe	Gln	Asp	125	130	135	
Lys	Glu	Thr	Val	Leu	Lys	Ile	Ser	Glu	Asn	Thr	Ala	Glu	Gly	Thr	140	145	150	
Ala	Phe	Arg	Leu	Glu	Arg	Ala	Gln	Asp	Pro	Asp	Gly	Gly	Leu	Asn	155	160	165	
Gly	Ile	Gln	Asn	Tyr	Thr	Ile	Ser	Pro	Asn	Ser	Phe	Phe	His	Ile	170	175	180	
Asn	Ile	Ser	Gly	Gly	Asp	Glu	Gly	Met	Ile	Tyr	Pro	Glu	Leu	Val	185	190	195	
Leu	Asp	Lys	Ala	Leu	Asp	Arg	Glu	Glu	Gln	Gly	Glu	Leu	Ser	Leu	200	205	210	
Thr	Leu	Thr	Ala	Leu	Asp	Gly	Gly	Ser	Pro	Ser	Arg	Ser	Gly	Thr	215	220	225	

Ser Thr Val Arg	Ile Val Val Leu Asp	Val Asn Asp Asn Ala Pro	230	235	240
Gln Phe Ala Gln	Ala Leu Tyr Glu Thr	Gln Ala Pro Glu Asn Ser	245	250	255
Pro Ile Gly Phe	Leu Ile Val Lys Val	Trp Ala Glu Asp Val Asp	260	265	270
Ser Gly Val Asn	Ala Glu Val Ser Tyr	Ser Phe Phe Asp Ala Ser	275	280	285
Glu Asn Ile Arg	Thr Thr Phe Gln Ile	Asn Pro Phe Ser Gly Glu	290	295	300
Ile Phe Leu Arg	Glu Leu Leu Asp Tyr	Glu Leu Val Asn Ser Tyr	305	310	315
Lys Ile Asn Ile	Gln Ala Met Asp Gly	Gly Gly Leu Ser Ala Arg	320	325	330
Cys Arg Val Leu	Val Glu Val Leu Asp	Thr Asn Asp Asn Pro Pro	335	340	345
Glu Leu Ile Val	Ser Ser Phe Ser Asn	Ser Val Ala Glu Asn Ser	350	355	360
Pro Glu Thr Pro	Leu Ala Val Phe Lys	Ile Asn Asp Arg Asp Ser	365	370	375
Gly Glu Asn Gly	Lys Met Val Cys Tyr	Ile Gln Glu Asn Leu Pro	380	385	390
Phe Leu Leu Lys	Pro Ser Val Glu Asn	Phe Tyr Ile Leu Ile Thr	395	400	405
Glu Gly Ala Leu	Asp Arg Glu Ile Arg	Ala Glu Tyr Asn Ile Thr	410	415	420
Ile Thr Val Thr	Asp Leu Gly Thr Pro	Arg Leu Lys Thr Glu His	425	430	435
Asn Ile Thr Val	Leu Val Ser Asp Val	Asn Asp Asn Ala Pro Ala	440	445	450
Phe Thr Gln Thr	Ser Tyr Thr Leu Phe	Val Arg Glu Asn Asn Ser	455	460	465
Pro Ala Leu His	Ile Gly Ser Val Ser	Ala Thr Asp Arg Asp Ser	470	475	480
Gly Thr Asn Ala	Gln Val Thr Tyr Ser	Leu Leu Pro Pro Gln Asp	485	490	495
Pro His Leu Pro	Leu Ala Ser Leu Val	Ser Ile Asn Ala Asp Asn	500	505	510
Gly His Leu Phe	Ala Leu Arg Ser Leu	Asp Tyr Glu Ala Leu Gln			

				515					520					525
Ala	Phe	Glu	Phe	Arg	Val	Gly	Ala	Thr	Asp	Arg	Gly	Ser	Pro	Ala
				530					535					540
Leu	Ser	Arg	Glu	Ala	Leu	Val	Arg	Val	Leu	Val	Leu	Asp	Ala	Asn
				545					550					555
Asp	Asn	Ser	Pro	Phe	Val	Leu	Tyr	Pro	Leu	Gln	Asn	Gly	Ser	Ala
				560					565					570
Pro	Cys	Thr	Glu	Leu	Val	Pro	Arg	Ala	Ala	Glu	Pro	Gly	Tyr	Leu
				575					580					585
Val	Thr	Lys	Val	Val	Ala	Val	Asp	Gly	Asp	Ser	Gly	Gln	Asn	Ala
				590					595					600
Trp	Leu	Ser	Tyr	Gln	Leu	Leu	Lys	Ala	Thr	Glu	Pro	Gly	Leu	Phe
				605					610					615
Gly	Val	Trp	Ala	His	Asn	Gly	Glu	Val	Arg	Thr	Ala	Arg	Leu	Leu
				620					625					630
Ser	Glu	Arg	Asp	Ala	Ala	Lys	His	Arg	Leu	Val	Val	Leu	Val	Lys
				635					640					645
Asp	Asn	Gly	Glu	Pro	Pro	Arg	Ser	Ala	Thr	Ala	Thr	Leu	His	Leu
				650					655					660
Leu	Leu	Val	Asp	Gly	Phe	Ser	Gln	Pro	Tyr	Leu	Pro	Leu	Pro	Glu
				665					670					675
Ala	Ala	Pro	Ala	Gln	Ala	Gln	Ala	Glu	Ala	Asp	Leu	Leu	Thr	Val
				680					685					690
Tyr	Leu	Val	Val	Ala	Leu	Ala	Ser	Val	Ser	Ser	Leu	Phe	Leu	Leu
				695					700					705
Ser	Val	Leu	Leu	Phe	Val	Ala	Val	Arg	Leu	Cys	Arg	Arg	Ser	Arg
				710					715					720
Ala	Ala	Ser	Val	Gly	Arg	Cys	Ser	Val	Pro	Glu	Gly	Pro	Phe	Pro
				725					730					735
Gly	His	Leu	Val	Asp	Val	Arg	Gly	Ala	Glu	Thr	Leu	Ser	Gln	Ser
				740					745					750
Tyr	Gln	Tyr	Glu	Val	Cys	Leu	Thr	Gly	Gly	Pro	Gly	Thr	Ser	Glu
				755					760					765
Phe	Lys	Phe	Leu	Lys	Pro	Val	Ile	Ser	Asp	Ile	Gln	Ala	Gln	Gly
				770					775					780
Pro	Gly	Arg	Lys	Gly	Glu	Glu	Asn	Ser	Thr	Phe	Arg	Asn	Ser	Phe
				785					790					795
Gly	Phe	Asn	Ile	Gln										
				800										

<210> 53  
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<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 53  
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<210> 54  
<211> 27  
<212> DNA  
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<220>  
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<400> 54  
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<210> 55  
<211> 46  
<212> DNA  
<213> Artificial Sequence

<220>  
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<400> 55  
cggtgactga ggaaacagag aaaggatcct ttgtgggtcaa tctggc 46

<210> 56  
<211> 2242  
<212> DNA  
<213> Homo Sapien

<220>  
<221> unsure  
<222> 2181  
<223> unknown base

<400> 56  
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tataccagcc tcgtcttcct tccgggggac aacgtgggtc agggcacaga 100  
gagatattta atgtcacctt cttgggggctt tcatgggact ccctctgcca 150  
catttttttg aggttgggaa agttgctaga ggcttcagaa ctccagccta 200  
atggatccca aactcgggag aatggctgctg tccctgctgg ctgtgctgct 250  
gctgctgctg gagcgcgga tgttctcctc accctccccg cccccggcgc 300  
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cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400  
gcctcgcttc agacaagagc tcttcagaat gatggccgtg gctgcggaca 450  
cgctgcagcg cctggggggc cgtgtggcct cggtggacat gggtcctcag 500  
cagctgcccc atggtcagag tcttccaata cctcccgtca tcctggccga 550  
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tagactcgtc tggtcatatc ctgggccctg gaatctatga tgaagtgggt 1100  
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gggatcgagg gcgcgtttga tgagcctgga actaaaacag tcatacctgg 1300  
ccgagttata ggaaaatttt caatccgtct agtccctcac atgaatgtgt 1350  
ctgcggtgga aaaacagggt acacgacatc ttgaagatgt gttctccaaa 1400  
agaaatagtt ccaacaagat ggttgtttcc atgactctag gactacaccc 1450  
gtggattgca aatattgatg acaccagta tctcgagca aaaagagcga 1500  
tcagaacagt gtttgaaca gaaccagata tgatccggga tggatccacc 1550  
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ttagagatgg ccagctcca ttaatcacia gaaccttcta gtctgatctg 1750  
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atcattccat ccaatgatcg cctttgcttt accactcttt ctttttatct 2150
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

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<210> 57
<211> 507
<212> PRT
<213> Homo Sapien

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          20          25          30
Pro Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His
          35          40          45
Gln Asp Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu
          50          55          60
Ser Asp Ser Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe
          65          70          75
Arg Met Met Ala Val Ala Ala Asp Thr Leu Gln Arg Leu Gly Ala
          80          85          90
Arg Val Ala Ser Val Asp Met Gly Pro Gln Gln Leu Pro Asp Gly
          95          100          105
Gln Ser Leu Pro Ile Pro Pro Val Ile Leu Ala Glu Leu Gly Ser
          110          115          120
Asp Pro Thr Lys Gly Thr Val Cys Phe Tyr Gly His Leu Asp Val
          125          130          135
Gln Pro Ala Asp Arg Gly Asp Gly Trp Leu Thr Asp Pro Tyr Val
          140          145          150
Leu Thr Glu Val Asp Gly Lys Leu Tyr Gly Arg Gly Ala Thr Asp
          155          160          165
Asn Lys Gly Pro Val Leu Ala Trp Ile Asn Ala Val Ser Ala Phe

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	170	175	180
Arg Ala Leu Glu	Gln Asp Leu Pro Val	Asn Ile Lys Phe Ile	Ile
	185	190	195
Glu Gly Met Glu	Glu Ala Gly Ser Val	Ala Leu Glu Glu Leu	Val
	200	205	210
Glu Lys Glu Lys	Asp Arg Phe Phe Ser	Gly Val Asp Tyr Ile	Val
	215	220	225
Ile Ser Asp Asn	Leu Trp Ile Ser Gln	Arg Lys Pro Ala Ile	Thr
	230	235	240
Tyr Gly Thr Arg	Gly Asn Ser Tyr Phe	Met Val Glu Val Lys	Cys
	245	250	255
Arg Asp Gln Asp	Phe His Ser Gly Thr	Phe Gly Gly Ile Leu	His
	260	265	270
Glu Pro Met Ala	Asp Leu Val Ala Leu	Leu Gly Ser Leu Val	Asp
	275	280	285
Ser Ser Gly His	Ile Leu Val Pro Gly	Ile Tyr Asp Glu Val	Val
	290	295	300
Pro Leu Thr Glu	Glu Glu Ile Asn Thr	Tyr Lys Ala Ile His	Leu
	305	310	315
Asp Leu Glu Glu	Tyr Arg Asn Ser Ser	Arg Val Glu Lys Phe	Leu
	320	325	330
Phe Asp Thr Lys	Glu Glu Ile Leu Met	His Leu Trp Arg Tyr	Pro
	335	340	345
Ser Leu Ser Ile	His Gly Ile Glu Gly	Ala Phe Asp Glu Pro	Gly
	350	355	360
Thr Lys Thr Val	Ile Pro Gly Arg Val	Ile Gly Lys Phe Ser	Ile
	365	370	375
Arg Leu Val Pro	His Met Asn Val Ser	Ala Val Glu Lys Gln	Val
	380	385	390
Thr Arg His Leu	Glu Asp Val Phe Ser	Lys Arg Asn Ser Ser	Asn
	395	400	405
Lys Met Val Val	Ser Met Thr Leu Gly	Leu His Pro Trp Ile	Ala
	410	415	420
Asn Ile Asp Asp	Thr Gln Tyr Leu Ala	Ala Lys Arg Ala Ile	Arg
	425	430	435
Thr Val Phe Gly	Thr Glu Pro Asp Met	Ile Arg Asp Gly Ser	Thr
	440	445	450
Ile Pro Ile Ala	Lys Met Phe Gln Glu	Ile Val His Lys Ser	Val
	455	460	465

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln  
470 475 480

Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu  
485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His  
500 505

<210> 58

<211> 1470

<212> DNA

<213> Homo Sapien

<400> 58

ctcggctgga tttaaggttg ccgctagccg cctgggaatt taagggaacc 50  
acactacctt cccgaagttg aaggcaagcg gtgattgttt gtagacggcg 100  
ctttgtcatg ggacctgtgc ggttggaat attgcttttc ctttttttg 150  
ccgtgcacga ggcttgggct gggatgttga aggaggagga cgatgacaca 200  
gaacgcttgc ccagcaaagc cgaagtgtgt aagctgctga gcacagagct 250  
acaggcggaa ctgagtcgca ccggtcgatc tcgagaggtg ctggagctgg 300  
ggcaggtgct ggatacaggc aagaggaaga gacacgtgcc ttacagcgtt 350  
tcagagacaa ggctggaaga ggccttagag aatttatgtg agcggatcct 400  
ggactatagt gttcacgctg agcgcaaggg ctactgaga tatgccaagg 450  
gtcagagtca gaccatggca aactgaaag gcctagtga gaagggggtg 500  
aaggtggatc tggggatccc tctggagctt tgggatgagc ccagcgtgga 550  
ggtcacatac ctcaagaagc agtgtgagac catgttgag gagtttgaag 600  
acattgtggg agactggtac ttccaccatc aggagcagcc cctacaaaat 650  
tttctctgtg aaggtcatgt gctcccagct gctgaaactg catgtctaca 700  
ggaaacttgg actggaaagg agatcacaga tggggaagag aaaacagaag 750  
gggaggaaga gcaggaggag gaggaggaag aggaggaaga ggaaggggga 800  
gacaagatga ccaagacagg aagccacccc aaacttgacc gagaagatct 850  
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tctaaagcct gcaactctcc tgctccacag ctttcagggt gtgtttatga 950  
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gatcctggtg aaacagcatg acatggcttc tggggtggag ggtgggggtg 1050  
gaggctctgc tctagagat gaactctatc cagccctta attggcaggt 1100

gtatgtgctg acagtactga aagcttttct ctttaactga tcccaccccc 1150  
 acccaaaagt cagcagtggc actggagctg tgggctttgg ggaagtcact 1200  
 tagctcctta aggtctgttt ttagaccctt ccaaggaaga ggccagaacg 1250  
 gacattctct gcgatctata tacattgcct gtatccagga ggctacacac 1300  
 cagcaaaccg tgaaggagaa tgggacactg ggtcatggcc tggagttgct 1350  
 gataatttag gtgggataga tacttggtct acttaagctc aatgtaaccc 1400  
 agagcccacc atatagtttt ataggtgctc aacttttctat atcgctatta 1450  
 aacttttttc tttttttcta 1470

<210> 59  
 <211> 248  
 <212> PRT  
 <213> Homo Sapien

<400> 59  
 Met Gly Pro Val Arg Leu Gly Ile Leu Leu Phe Leu Phe Leu Ala  
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 Val His Glu Ala Trp Ala Gly Met Leu Lys Glu Glu Asp Asp Asp  
 20 25 30  
 Thr Glu Arg Leu Pro Ser Lys Cys Glu Val Cys Lys Leu Leu Ser  
 35 40 45  
 Thr Glu Leu Gln Ala Glu Leu Ser Arg Thr Gly Arg Ser Arg Glu  
 50 55 60  
 Val Leu Glu Leu Gly Gln Val Leu Asp Thr Gly Lys Arg Lys Arg  
 65 70 75  
 His Val Pro Tyr Ser Val Ser Glu Thr Arg Leu Glu Glu Ala Leu  
 80 85 90  
 Glu Asn Leu Cys Glu Arg Ile Leu Asp Tyr Ser Val His Ala Glu  
 95 100 105  
 Arg Lys Gly Ser Leu Arg Tyr Ala Lys Gly Gln Ser Gln Thr Met  
 110 115 120  
 Ala Thr Leu Lys Gly Leu Val Gln Lys Gly Val Lys Val Asp Leu  
 125 130 135  
 Gly Ile Pro Leu Glu Leu Trp Asp Glu Pro Ser Val Glu Val Thr  
 140 145 150  
 Tyr Leu Lys Lys Gln Cys Glu Thr Met Leu Glu Glu Phe Glu Asp  
 155 160 165  
 Ile Val Gly Asp Trp Tyr Phe His His Gln Glu Gln Pro Leu Gln  
 170 175 180

Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala
				185					190					195
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu
				200					205					210
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Glu
				215					220					225
Glu	Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His
				230					235					240
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu							
				245										

<210> 60  
 <211> 890  
 <212> DNA  
 <213> Homo Sapien

<400> 60  
 aagtacttgt gtccgggtgg tggactggat tagctgcgga gccctggaag 50  
 ctgcctgtcc ttctccctgt gcttaaccag aggtgcccat gggttggaca 100  
 atgaggctgg tcacagcagc actgttactg ggtctcatga tgggtggtcac 150  
 tggagacgag gatgagaaca gcccggtgtgc ccatgaggcc ctcttgacg 200  
 aggacaccct cttttgccag ggccttgaag ttttctaccc agagttgggg 250  
 aacattggct gcaagggtgt tctgtattgt aacaactaca gacagaagat 300  
 cacctcctgg atggagccga tagtcaagtt cccggggggcc gtggacggcg 350  
 caacctatat cctggtgatg gtggatccag atgcccctag cagagcagaa 400  
 ccagacaga gattctggag acattggctg gtaacagata tcaagggcgc 450  
 cgacctgaag aaagggaaga ttcagggcca ggagttatca gcctaccagg 500  
 ctccctcccc accggcacac agtgggttcc atcgctacca gttctttgtc 550  
 tatcttcagg aaggaaaagt catctctctc cttccaagg aaaacaaac 600  
 tcgaggctct tggaaaatgg acagatttct gaaccgcttc cacctgggcg 650  
 aacctgaagc aagcaccagc ttcattgacc agaactacca ggactcacca 700  
 accctccagg ctcccagagg aagggccagc gagccaagc acaaaaccag 750  
 gcagagatag ctgcctgcta gatagccggc tttgccatcc gggcatgtgg 800  
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 gaacccttc ttttccaaat taacaaaaaa aatcatcaaa 890

<210> 61

<211> 223  
 <212> PRT  
 <213> Homo Sapien

<400> 61

Met	Gly	Trp	Thr	Met	Arg	Leu	Val	Thr	Ala	Ala	Leu	Leu	Leu	Gly	
1				5					10					15	
Leu	Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	
				20					25					30	
Ala	His	Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	
				35					40					45	
Leu	Glu	Val	Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	
				50					55					60	
Val	Pro	Asp	Cys	Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	
				65					70					75	
Glu	Pro	Ile	Val	Lys	Phe	Pro	Gly	Ala	Val	Asp	Gly	Ala	Thr	Tyr	
				80					85					90	
Ile	Leu	Val	Met	Val	Asp	Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	
				95					100					105	
Arg	Gln	Arg	Phe	Trp	Arg	His	Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	
				110					115					120	
Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile	Gln	Gly	Gln	Glu	Leu	Ser	Ala	
				125					130					135	
Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His	Ser	Gly	Phe	His	Arg	Tyr	
				140					145					150	
Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys	Val	Ile	Ser	Leu	Leu	
				155					160					165	
Pro	Lys	Glu	Asn	Lys	Thr	Arg	Gly	Ser	Trp	Lys	Met	Asp	Arg	Phe	
				170					175					180	
Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser	Thr	Gln	Phe	
				185					190					195	
Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala	Pro	Arg	
				200					205					210	
Gly	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Thr	Arg	Gln	Arg			
				215					220						

<210> 62  
 <211> 1321  
 <212> DNA  
 <213> Homo Sapien

<400> 62

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 aggcaactcca ggagacgctg atggtggagg aagggccgtc tatcaatcaa 150  
 tcaactgttg tgttatcaca tgcaagtatc cagaggctct tgagcaaggc 200  
 agaggggatc ccatttatctt gggaatccag aatccagaaa tgtgtttgta 250  
 ttgtgagaag gttggagaac agcccacatt gcagctaaaa gagcagaaga 300  
 tcatggatct gtatggccaa cccgagcccg tgaaaccctt ccttttctac 350  
 cgtgccaaaga ctggtaggac ctccaccctt gagtctgtgg ccttcccga 400  
 ctggttcatt gcctcctcca agagagacca gcccatcatt ctgacttcag 450  
 aacttgggaa gtcatacaac actgcctttg aattaaatat aaatgactga 500  
 actcagccta gaggtggcag cttggtcttt gtcttaaagt ttctggttcc 550  
 caatgtgttt tctgtctacat tttcttagtg tcattttcac gctggtgctg 600  
 agacaggagc aaggctgctg ttatcatctc attttataat gaagaagaag 650  
 caattacttc atagcaactg aagaacagga tgtggcctca gaagcaggag 700  
 agctgggtgg tataaggctg tcctctcaag ctggtgctgt gtaggccaca 750  
 aggcatctgc atgagtgact ttaagactca aagaccaaac actgagcttt 800  
 cttctagggg tgggtatgaa gatgcttcag agctcatgcg cgttaccac 850  
 gatggcatga ctagcacaga gctgatctct gtttctgttt tgctttattc 900  
 cctcttggga tgatatcatc cagtctttat atgttgccaa tatacctcat 950  
 tgtgtgtaat agaaccttct tagcattaag accttgtaaa caaaaataat 1000  
 tcttgggggtg ggtatgaaga tgcttcagag ctcatgcgcg ttaccacga 1050  
 tggcatgact agcacagagc tgatctctgt ttctgttttg ctttattccc 1100  
 tcttgggatg atatcatcca gtctttatat gttgccaata tacctcattg 1150  
 tgtgtaatag aaccttctta gcattaagac cttgtaaaca aaaataattc 1200  
 ttgtgttaag ttaaatacatt tttgtcctaa ttgtaatgtg taatcttaaa 1250  
 gttaaataaa ctttgtgtat ttatataata ataaagctaa aactgatata 1300  
 aaataaagaa agagtaaact g 1321

<210> 63  
 <211> 134 .  
 <212> PRT  
 <213> Homo Sapien  
  
 <400> 63

Met	Arg	Gly	Thr	Pro	Gly	Asp	Ala	Asp	Gly	Gly	Gly	Arg	Ala	Val	1	5	10	15
Tyr	Gln	Ser	Ile	Thr	Val	Ala	Val	Ile	Thr	Cys	Lys	Tyr	Pro	Glu	20	25	30	
Ala	Leu	Glu	Gln	Gly	Arg	Gly	Asp	Pro	Ile	Tyr	Leu	Gly	Ile	Gln	35	40	45	
Asn	Pro	Glu	Met	Cys	Leu	Tyr	Cys	Glu	Lys	Val	Gly	Glu	Gln	Pro	50	55	60	
Thr	Leu	Gln	Leu	Lys	Glu	Gln	Lys	Ile	Met	Asp	Leu	Tyr	Gly	Gln	65	70	75	
Pro	Glu	Pro	Val	Lys	Pro	Phe	Leu	Phe	Tyr	Arg	Ala	Lys	Thr	Gly	80	85	90	
Arg	Thr	Ser	Thr	Leu	Glu	Ser	Val	Ala	Phe	Pro	Asp	Trp	Phe	Ile	95	100	105	
Ala	Ser	Ser	Lys	Arg	Asp	Gln	Pro	Ile	Ile	Leu	Thr	Ser	Glu	Leu	110	115	120	
Gly	Lys	Ser	Tyr	Asn	Thr	Ala	Phe	Glu	Leu	Asn	Ile	Asn	Asp	125	130			

<210> 64  
 <211> 999  
 <212> DNA  
 <213> Homo Sapien

<400> 64  
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 gacctgctac tcccgcacgc gggccctgag ccaggagatc acccgcgact 150  
 tcaacctcct gcagggtctcg gagccctcgg agccatgtgt gagatacctg 200  
 cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgcg 250  
 ggactttgtg gcctcgcccc cgtgttggaa agtggcccag gtagattcct 300  
 tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350  
 agagatttgg tattcctggt ggatgactgc aatgccttgg aatacccaat 400  
 cccagtgact acggtcctgc cagatcgta gcgctaaggg aactgagacc 450  
 agagaaagaa cccaagagaa ctaaagttat gtcagctacc cagacttaat 500  
 gggccagagc catgaccctc acaggtcttg tgtagttgt atctgaaact 550  
 gttatgtatc tctctacctt ctggaaaaca gggctgggtat tcctaccag 600  
 gaacctcctt tgagcataga gttagcaacc atgcttctca ttcccttgac 650

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tcatgtcttg ccaggatggt tagatacaca gcatgttgat ttggtcacta 700
aaaagaagaa aaggactaac aagcttcact tttatgaaca actattttga 750
gaacatgcac aatagtatgt ttttattact ggtttaatgg agtaatggta 800
cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
tatgcctttt tctaacacag actttcttca ctgtctttca tttaaaaaga 900
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ctttcattga aaggtgatga aaatcaaata aagaatctct tcacatgga 999

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<210> 65
<211> 136
<212> PRT
<213> Homo Sapien

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<400> 65
Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Ala
 1          5          10          15
Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
          20          25          30
Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
          35          40          45
Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
          50          55          60
Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
          65          70          75
Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
          80          85          90
Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
          95          100          105
Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
          110          115          120
Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
          125          130          135
Arg

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<210> 66
<211> 1893
<212> DNA
<213> Homo Sapien

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<400> 66
gtctccgcgt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

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tctacctgga gacttgactc ccgcgcgccc caaccctgct tatcccttga 100  
ccgtcgagtg tcagagatcc tgcagccgcc cagtcgccgc ccctctcccg 150  
ccccacaccc accctcctgg ctcttcctgt ttttactcct ccttttcatt 200  
cataacaaaa gctacagctc caggagccca gcgcggggct gtgacccaag 250  
ccgagcgtgg aagaatgggg ttccctcgga ccggcacttg gattctggtg 300  
ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaaagaaa 350  
atctctacat aatagagaat taagtgcaga aagaccttg aatgaacaga 400  
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aagccaggtc agagcaacta ttcttttgtt gataacttga acctgctaaa 500  
ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550  
gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600  
aatcgaaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650  
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aatgacagag ccgtgtttga caagattgtt tctaaactac ttaatctcgg 800  
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ttttacaaaa attaattctc aaggaagcca acaattatga ggaggatccc 900  
aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950  
agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000  
atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050  
actaaaacct acagtgaaga caactttgag gaactccaat atttcccaaa 1100  
tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150  
aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200  
atggtgaaat atggaacaat atctccagaa gaaggtgttt cctaccttga 1250  
aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300  
atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350  
catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400  
atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450  
gaaagacaga tgaacccaaa ggaaaaacag aagcctatth ggaagccatc 1500

agaaaaaata ttgaatgggt gaagaaacat gacaaaaagg gaaataaaga 1550  
 agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600  
 cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650  
 cgcatttata gcagcctgta aaaatggcaa aagatccagg agtctttcaa 1700  
 ctgtttcaga aaacataata tagcttaaaa cacttctaata tctgtgatta 1750  
 aaatttttttg acccaagggt tattagaaag tgctgaattt acagtagtta 1800  
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 aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaa aaa 1893

<210> 67

<211> 468

<212> PRT

<213> Homo Sapien

<400> 67

Met	Gly	Phe	Leu	Gly	Thr	Gly	Thr	Trp	Ile	Leu	Val	Leu	Val	Leu	1	5	10	15
Pro	Ile	Gln	Ala	Phe	Pro	Lys	Pro	Gly	Gly	Ser	Gln	Asp	Lys	Ser	20	25	30	
Leu	His	Asn	Arg	Glu	Leu	Ser	Ala	Glu	Arg	Pro	Leu	Asn	Glu	Gln	35	40	45	
Ile	Ala	Glu	Ala	Glu	Glu	Asp	Lys	Ile	Lys	Lys	Thr	Tyr	Pro	Pro	50	55	60	
Glu	Asn	Lys	Pro	Gly	Gln	Ser	Asn	Tyr	Ser	Phe	Val	Asp	Asn	Leu	65	70	75	
Asn	Leu	Leu	Lys	Ala	Ile	Thr	Glu	Lys	Glu	Lys	Ile	Glu	Lys	Glu	80	85	90	
Arg	Gln	Ser	Ile	Arg	Ser	Ser	Pro	Leu	Asp	Asn	Lys	Leu	Asn	Val	95	100	105	
Glu	Asp	Val	Asp	Ser	Thr	Lys	Asn	Arg	Lys	Leu	Ile	Asp	Asp	Tyr	110	115	120	
Asp	Ser	Thr	Lys	Ser	Gly	Leu	Asp	His	Lys	Phe	Gln	Asp	Asp	Pro	125	130	135	
Asp	Gly	Leu	His	Gln	Leu	Asp	Gly	Thr	Pro	Leu	Thr	Ala	Glu	Asp	140	145	150	
Ile	Val	His	Lys	Ile	Ala	Ala	Arg	Ile	Tyr	Glu	Glu	Asn	Asp	Arg	155	160	165	
Ala	Val	Phe	Asp	Lys	Ile	Val	Ser	Lys	Leu	Leu	Asn	Leu	Gly	Leu	170	175	180	

Ile Thr Glu Ser	Gln Ala His Thr Leu	Glu Asp Glu Val Ala	Glu
	185	190	195
Val Leu Gln Lys	Leu Ile Ser Lys Glu	Ala Asn Asn Tyr Glu	Glu
	200	205	210
Asp Pro Asn Lys	Pro Thr Ser Trp Thr	Glu Asn Gln Ala Gly	Lys
	215	220	225
Ile Pro Glu Lys	Val Thr Pro Met Ala	Ala Ile Gln Asp Gly	Leu
	230	235	240
Ala Lys Gly Glu	Asn Asp Glu Thr Val	Ser Asn Thr Leu Thr	Leu
	245	250	255
Thr Asn Gly Leu	Glu Arg Arg Thr Lys	Thr Tyr Ser Glu Asp	Asn
	260	265	270
Phe Glu Glu Leu	Gln Tyr Phe Pro Asn	Phe Tyr Ala Leu Leu	Lys
	275	280	285
Ser Ile Asp Ser	Glu Lys Glu Ala Lys	Glu Lys Glu Thr Leu	Ile
	290	295	300
Thr Ile Met Lys	Thr Leu Ile Asp Phe	Val Lys Met Met Val	Lys
	305	310	315
Tyr Gly Thr Ile	Ser Pro Glu Glu Gly	Val Ser Tyr Leu Glu	Asn
	320	325	330
Leu Asp Glu Met	Ile Ala Leu Gln Thr	Lys Asn Lys Leu Glu	Lys
	335	340	345
Asn Ala Thr Asp	Asn Ile Ser Lys Leu	Phe Pro Ala Pro Ser	Glu
	350	355	360
Lys Ser His Glu	Glu Thr Asp Ser Thr	Lys Glu Glu Ala Ala	Lys
	365	370	375
Met Glu Lys Glu	Tyr Gly Ser Leu Lys	Asp Ser Thr Lys Asp	Asp
	380	385	390
Asn Ser Asn Pro	Gly Gly Lys Thr Asp	Glu Pro Lys Gly Lys	Thr
	395	400	405
Glu Ala Tyr Leu	Glu Ala Ile Arg Lys	Asn Ile Glu Trp Leu	Lys
	410	415	420
Lys His Asp Lys	Lys Gly Asn Lys Glu	Asp Tyr Asp Leu Ser	Lys
	425	430	435
Met Arg Asp Phe	Ile Asn Lys Gln Ala	Asp Ala Tyr Val Glu	Lys
	440	445	450
Gly Ile Leu Asp	Lys Glu Glu Ala Glu	Ala Ile Lys Arg Ile	Tyr
	455	460	465
Ser Ser Leu			

<210> 68  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 68  
cgtcacagga acttcagcac cc 22

<210> 69  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 69  
gtcttggctt cctccaggtt tgg 23

<210> 70  
<211> 38  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 70  
ggacagcgt cccctotacc tggagacttg actccgc 38

<210> 71  
<211> 2379  
<212> DNA  
<213> Homo Sapien

<400> 71  
gttgctccgg cggcgctcgg ggagggagcc agcagcctag ggcctaggcc 50  
cgggccacca tggcgctgcc tccaggccca gccgccctcc ggcacacact 100  
gctgctcctg ccagcccttc tgagctcagg ttggggggag ttggagccac 150  
aaatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200  
cacgccttca cctgccgggt ggcagggggg cctggcaccc ccagattggc 250  
ctggtatctg gatggacagc tgcaggaggc cagcacctca agactgctga 300  
gcgtgggagg ggaggccttc tctggaggca ccagcacctt cactgtcact 350  
gcccatcggg ccagcatga gctcaactgc tctctgcagg accccagaag 400  
tggccgatca gccaacgcct ctgtcatcct taatgtgcaa ttcaagccag 450

agattgcccc agtcggcgcc aagtaccagg aagctcaggg cccaggcctc 500  
 ctggttggtcc tgtttgccct ggtgctgcc aaccgcgagg ccaatgtcac 550  
 ctggatcgac caggatgggc cagtgactgt caacacctct gacttcctgg 600  
 tgctggatgc gcagaactac ccctggctca ccaaccacac ggtgcagctg 650  
 cagctccgca gcctggcaca caacctctcg gtggtggcca ccaatgacgt 700  
 ggggtgtacc agtgcgtcgc ttccagcccc agggccctcc cggcaccat 750  
 ctctgatatc aagtgactcc aacaacctaa aactcaaca cgtgcgcctg 800  
 ccacgggaga acatgtccct ccggtccaac cttcagctca atgacctcac 850  
 tccagattcc agagcagtga aaccagcaga ccggcagatg gtcagaaca 900  
 acagccggcc agagcttctg gacccggagc ccggcggcct cctcaccagc 950  
 caaggtttca tccgcctccc agtgctgggc tatatctatc gagtgtccag 1000  
 cgtgagcagt gatgagatct ggctctgagc cgagggcgag acaggagtat 1050  
 tctcttgccc totggacacc ctcccattcc tccaaggcat cctctaccta 1100  
 gctaggtcac caacgtgaag aagttatgcc actgccactt ttgcttgccc 1150  
 tcctggctgg ggtgccctcc atgtcatgca cgtgatgcat ttcactgggc 1200  
 tgtaaccgac aggggcacag gtatctttgg caaggctacc agttggacgt 1250  
 aagcccctca tgctgactca ggggtgggccc tgcattgtgat gactgggccc 1300  
 ttccagaggg agctctttgg ccaggggtgt tcagatgtca tccagcatcc 1350  
 aagtgtggca tggcctgtcg tataccccac ccagttactc cacagcacct 1400  
 tgtacagtag gcatgggggc gtgcctgtgt gggggacagg gagggccctg 1450  
 catggatttt cctccttctc atgctatgta gccttggtcc ctcaggtaaa 1500  
 atttaggacc ctgctagctg tgcagaacct aattgccctt tgcacagaaa 1550  
 ccaacccctg accagcggg accggccaag cacaacgtc ctttttgctg 1600  
 cacacgtctc tgccttcac ttcttctctt ctgtccccac ctctcttg 1650  
 gaattctagg ttacacgttg gaccttctct actacttcac tgggcactag 1700  
 acttttctat tggcctgtgc catgcccag tattagcaca agttaggagg 1750  
 gaagaggcag gcgatgagtc tagtagcacc caggacggct ttagctatg 1800  
 catcattttc ctacggcggt agcactttaa gcacatcccc taggggaggg 1850  
 ggtgagtgag gggcccagag ccctctttgt ggcttcccca cgtttggcct 1900

tctgggattc actgtgagtg tcctgagctc tcggggttga tggtttttct 1950  
ctcagcatgt ctctccacc acgggacccc agccctgacc aacccatggt 2000  
tgcctcatca gcaggaaggt gcccttcctg gaggatggtc gccacaggca 2050  
cataattcaa cagtgtggaa gctttagggg aacatggaga aagaaggaga 2100  
ccacataccc caaagtgacc taagaacact ttaaaaagca acatgtaaat 2150  
gattggaaat taatatagta cagaatatat tttcccttg ttgagatctt 2200  
cttttgtaat gtttttcatg ttactgccta gggcggtgct gagcacacag 2250  
caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2379

<210> 72  
<211> 322  
<212> PRT  
<213> Homo Sapien

<400> 72  
Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu  
1 5 10 15  
Leu Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro  
20 25 30  
Gln Ile Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn  
35 40 45  
Glu Arg His Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr  
50 55 60  
Pro Arg Leu Ala Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser  
65 70 75  
Thr Ser Arg Leu Leu Ser Val Gly Gly Glu Ala Phe Ser Gly Gly  
80 85 90  
Thr Ser Thr Phe Thr Val Thr Ala His Arg Ala Gln His Glu Leu  
95 100 105  
Asn Cys Ser Leu Gln Asp Pro Arg Ser Gly Arg Ser Ala Asn Ala  
110 115 120  
Ser Val Ile Leu Asn Val Gln Phe Lys Pro Glu Ile Ala Gln Val  
125 130 135  
Gly Ala Lys Tyr Gln Glu Ala Gln Gly Pro Gly Leu Leu Val Val  
140 145 150  
Leu Phe Ala Leu Val Arg Ala Asn Pro Pro Ala Asn Val Thr Trp  
155 160 165

Ile	Asp	Gln	Asp	Gly	Pro	Val	Thr	Val	Asn	Thr	Ser	Asp	Phe	Leu
				170					175					180
Val	Leu	Asp	Ala	Gln	Asn	Tyr	Pro	Trp	Leu	Thr	Asn	His	Thr	Val
				185					190					195
Gln	Leu	Gln	Leu	Arg	Ser	Leu	Ala	His	Asn	Leu	Ser	Val	Val	Ala
				200					205					210
Thr	Asn	Asp	Val	Gly	Val	Thr	Ser	Ala	Ser	Leu	Pro	Ala	Pro	Gly
				215					220					225
Pro	Ser	Arg	His	Pro	Ser	Leu	Ile	Ser	Ser	Asp	Ser	Asn	Asn	Leu
				230					235					240
Lys	Leu	Asn	Asn	Val	Arg	Leu	Pro	Arg	Glu	Asn	Met	Ser	Leu	Pro
				245					250					255
Ser	Asn	Leu	Gln	Leu	Asn	Asp	Leu	Thr	Pro	Asp	Ser	Arg	Ala	Val
				260					265					270
Lys	Pro	Ala	Asp	Arg	Gln	Met	Ala	Gln	Asn	Asn	Ser	Arg	Pro	Glu
				275					280					285
Leu	Leu	Asp	Pro	Glu	Pro	Gly	Gly	Leu	Leu	Thr	Ser	Gln	Gly	Phe
				290					295					300
Ile	Arg	Leu	Pro	Val	Leu	Gly	Tyr	Ile	Tyr	Arg	Val	Ser	Ser	Val
				305					310					315
Ser	Ser	Asp	Glu	Ile	Trp	Leu								
				320										

<210> 73  
 <211> 843  
 <212> DNA  
 <213> Homo Sapien

<400> 73  
 cggggacgga agcggcccccct gggcccgagg ggctggagcc gggccggggc 50  
 gatgtggagc gcgggcccgc gcggggctgc ctggccggtg ctgttggggc 100  
 tgctgctggc gctgttagtg ccgggcggtg gtgccgccaa gaccggtgcg 150  
 gagctcgtga cctgcggggtc ggtgctgaag ctgctcaata cgcaccaccg 200  
 cgtgcggctg cactgcgacg acatcaaata cggatccggc agcggccagc 250  
 aatcggtgac cggcgtagag gcgtcggacg acgccaatag ctactggcgg 300  
 atccgcggcg gctcggaggg cgggtgcccg cgcgggtccc cggcgcgctg 350  
 cgggcaggcg gtgaggctca cgcattgtgt tacgggcaag aacctgcaca 400  
 cgcaccactt cccgtcgccg ctgtccaaca accaggaggt gattgccttt 450  
 ggggaagacg gcgagggcga cgacctggac ctatggacag tgcgctgctc 500

tggacagcac tgggagcgtg aggctgctgt gcgcttccag catgtgggca 550  
 cctctgtgtt cctgtcagtc acgggtgagc agtatggaag ccccatccgt 600  
 gggcagcatg aggtccacgg catgcccagt gccaacacgc acaatacgtg 650  
 gaaggccatg gaaggcatct tcatcaagcc tagtgtggag ccctctgcag 700  
 gtcacgatga actctgagtg tgtggatgga tgggtggatg gaggggtggca 750  
 ggtggggcgt ctgcagggcc actcttggca gagactttgg gttttaggg 800  
 gtcctcaagt gcctttgtga ttaaagaatg ttggtctatg aaa 843

<210> 74  
 <211> 221  
 <212> PRT  
 <213> Homo Sapien

<400> 74  
 Met Trp Ser Ala Gly Arg Gly Gly Ala Ala Trp Pro Val Leu Leu  
 1 5 10 15  
 Gly Leu Leu Leu Ala Leu Leu Val Pro Gly Gly Gly Ala Ala Lys  
 20 25 30  
 Thr Gly Ala Glu Leu Val Thr Cys Gly Ser Val Leu Lys Leu Leu  
 35 40 45  
 Asn Thr His His Arg Val Arg Leu His Ser His Asp Ile Lys Tyr  
 50 55 60  
 Gly Ser Gly Ser Gly Gln Gln Ser Val Thr Gly Val Glu Ala Ser  
 65 70 75  
 Asp Asp Ala Asn Ser Tyr Trp Arg Ile Arg Gly Gly Ser Glu Gly  
 80 85 90  
 Gly Cys Pro Arg Gly Ser Pro Val Arg Cys Gly Gln Ala Val Arg  
 95 100 105  
 Leu Thr His Val Leu Thr Gly Lys Asn Leu His Thr His His Phe  
 110 115 120  
 Pro Ser Pro Leu Ser Asn Asn Gln Glu Val Ser Ala Phe Gly Glu  
 125 130 135  
 Asp Gly Glu Gly Asp Asp Leu Asp Leu Trp Thr Val Arg Cys Ser  
 140 145 150  
 Gly Gln His Trp Glu Arg Glu Ala Ala Val Arg Phe Gln His Val  
 155 160 165  
 Gly Thr Ser Val Phe Leu Ser Val Thr Gly Glu Gln Tyr Gly Ser  
 170 175 180  
 Pro Ile Arg Gly Gln His Glu Val His Gly Met Pro Ser Ala Asn  
 185 190 195



Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile Lys Pro  
 200 205 210

Ser Val Glu Pro Ser Ala Gly His Asp Glu Leu  
 215 220

<210> 75  
 <211> 1049  
 <212> DNA  
 <213> Homo Sapien

<400> 75  
 gttgctatgt tgcccaggct ggtcttgaag tgccttgacc tcctaaagtg 50  
 ttggaaccac agacgtgagc cactccaccc agcctaaaac ttcattcttct 100  
 ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150  
 ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200  
 tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250  
 gctttgggaa ttccaaagta ctcagtggag agaggtgttt caggagccgt 300  
 agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt 350  
 gccctgatgg acttgctctga aagcagcaac tggggatgct atggaaacat 400  
 ccaaagcctg gacaccctg gagcatcttg tgggattgga agacgtcacg 450  
 gcctgaacta ctgtggagtt cgtgcttctg aaaggctggc tgaaatagac 500  
 atgccatacc tcctgaaata tcaacccatg atgcaaacca ttggccaaaa 550  
 gtactgcatg gatcctgccg tgatcgtgg tgtcttgtcc aggaagtctc 600  
 ccggtgacaa aattctggtc aacatgggag ataggactag catggtgcag 650  
 gaccctggct ctcaagctcc cacatcctgg attagtgagt ctcagggttc 700  
 ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750  
 ttccaacctg gaccctgac cagtacctga gaggtggact ctgtgcctac 800  
 agtgggggtg ctggctatgt ccgaagcagc caggacctga gctgtgactt 850  
 ctgcaatgat gtccttgac gagccaagta cctcaagaga catggcttct 900  
 aacatctcag atgaaacca agaccatgat cacatatgca gcctcaaatg 950  
 ttacacagat aaaactagcc aagggcacct gtaactggga atctgagttt 1000  
 gacctaaaag tcattaaaat aacatgaatc ccattaaaaa aaaaaaaaaa 1049

<210> 76  
 <211> 194  
 <212> PRT  
 <213> Homo Sapien

<400> 76

Met Ser Ala Leu Trp Leu Leu Leu Gly Leu Leu Ala Leu Met Asp  
1 5 10 15  
Leu Ser Glu Ser Ser Asn Trp Gly Cys Tyr Gly Asn Ile Gln Ser  
20 25 30  
Leu Asp Thr Pro Gly Ala Ser Cys Gly Ile Gly Arg Arg His Gly  
35 40 45  
Leu Asn Tyr Cys Gly Val Arg Ala Ser Glu Arg Leu Ala Glu Ile  
50 55 60  
Asp Met Pro Tyr Leu Leu Lys Tyr Gln Pro Met Met Gln Thr Ile  
65 70 75  
Gly Gln Lys Tyr Cys Met Asp Pro Ala Val Ile Ala Gly Val Leu  
80 85 90  
Ser Arg Lys Ser Pro Gly Asp Lys Ile Leu Val Asn Met Gly Asp  
95 100 105  
Arg Thr Ser Met Val Gln Asp Pro Gly Ser Gln Ala Pro Thr Ser  
110 115 120  
Trp Ile Ser Glu Ser Gln Val Ser Gln Thr Thr Glu Val Leu Thr  
125 130 135  
Thr Arg Ile Lys Glu Ile Gln Arg Arg Phe Pro Thr Trp Thr Pro  
140 145 150  
Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala Tyr Ser Gly Gly Ala  
155 160 165  
Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn  
170 175 180  
Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His Gly Phe  
185 190

<210> 77

<211> 899

<212> DNA

<213> Homo Sapien

<400> 77

ttgaaaatct actctatcag ctgctgtggt tgccaccatt ctcaggaccc 50  
tcgccatgaa agcccttatg ctgctcacc tgtctgttct gctctgctgg 100  
gtctcagctg acattcgctg tcaactcctgc tacaaggctc ctgtgctggg 150  
ctgtgtggac cggcagtcct gccgcctgga gccaggacag caatgcctga 200  
caacacatgc ataccttggt aagatgtggg ttttctccaa tctgcgctgt 250  
ggcacaccag aagagccctg tcaggaggcc ttcaaccaa ccaaccgcaa 300

gctgggtctg acatataaca ccacctgctg caacaaggac aactgcaaca 350  
 gcgcaggacc ccggcccact ccagccctgg gccttgtctt ccttacctcc 400  
 ttggctggcc ttggcctctg gctgctgcac tgagactcat tccattggct 450  
 gcccctcctc ccacctgcct tggcctgagc ctctctccct gtgtctctgt 500  
 atccccctggc ttacagaat cgtctctccc tagctcccat ttctttaatt 550  
 aaacactgtt ccgagtggtc tcctcatcca tccttcccac ctcacacct 600  
 tcactctcct tttctgggt ccttcccac ttcttccag gacctccatt 650  
 ggctcctaga agggctcccc actttgcttc ctatactctg ctgtccccta 700  
 cttgaggagg gattgggatc tgggcctgaa atggggcttc tgtgttgtcc 750  
 ccagtgaagg ctcccacaag gacctgatga cctcactgta cagagctgac 800  
 tccccaaacc caggctccca tatgtacccc atcccccata ctcacctctt 850  
 tccattttga gtaataaatg tctgagtctg gaaaaaaaaa aaaaaaaaaa 899

<210> 78  
 <211> 125  
 <212> PRT  
 <213> Homo Sapien

<400> 78  
 Met Lys Ala Leu Met Leu Leu Thr Leu Ser Val Leu Leu Cys Trp  
     1                    5                    10                    15  
 Val Ser Ala Asp Ile Arg Cys His Ser Cys Tyr Lys Val Pro Val  
                     20                    25                    30  
 Leu Gly Cys Val Asp Arg Gln Ser Cys Arg Leu Glu Pro Gly Gln  
                     35                    40                    45  
 Gln Cys Leu Thr Thr His Ala Tyr Leu Gly Lys Met Trp Val Phe  
                     50                    55                    60  
 Ser Asn Leu Arg Cys Gly Thr Pro Glu Glu Pro Cys Gln Glu Ala  
                     65                    70                    75  
 Phe Asn Gln Thr Asn Arg Lys Leu Gly Leu Thr Tyr Asn Thr Thr  
                     80                    85                    90  
 Cys Cys Asn Lys Asp Asn Cys Asn Ser Ala Gly Pro Arg Pro Thr  
                     95                    100                    105  
 Pro Ala Leu Gly Leu Val Phe Leu Thr Ser Leu Ala Gly Leu Gly  
                     110                    115                    120  
 Leu Trp Leu Leu His  
                     125

<210> 79

<211> 1977  
<212> DNA  
<213> Homo Sapien

<400> 79

acggggccgca gcggcagtg cgtagggttg gcgcacggat ccgttgccgc 50  
tgcagctctg cagtcggggc gttccttcgc cgccgccagg ggtagcgggtg 100  
tagctgcgca gcgtcgcgcg cgctaccgca cccaggttcg gcccgtaggc 150  
gtctggcagc ccggcgccat cttcatcgag cgccatggcc gcagcctgcg 200  
ggccgggagc ggccgggtac tgcttgctcc tcggcttgca tttgtttctg 250  
ctgaccgcgg gccctgccct gggctggaac gaccctgaca gaatgttgct 300  
gcgggatgta aaagctctta ccctccacta tgaccgctat accacctccc 350  
gcaggctgga tcccatccca cagttgaaat gtgttgagg cagagctgg 400  
tgtgattctt ataccccaaa agtcatacag tgtcagaaca aaggctggga 450  
tgggtatgat gtacagtggg aatgtaagac ggacttagat attgcataca 500  
aatttgaaaa aactgtggtg agctgtgaag gctatgagtc ctctgaagac 550  
cagtatgtac taagagggtc ttgtggcttg gagtataatt tagattatac 600  
agaacttggc ctgcagaaac tgaaggagtc tggaagcag cacggctttg 650  
cctctttctc tgattattat tataagtggc cctcggcgga ttcctgtaac 700  
atgagtggat tgattaccat cgtgggtact cttgggatcg cttttgtagt 750  
ctataagctg ttcctgagtg acgggcagta ttctcctcca ccgtactctg 800  
agtatcctcc attttcccac cgttaccaga gattcaccaa ctacagcagga 850  
cctcctccc caggctttaa gtctgagttc acaggaccac agaatactgg 900  
ccatggtgca acttctgggt ttggcagtg ttttacagga caacaaggat 950  
atgaaaattc aggaccaggg ttctggacag gcttgggaac tgggtggaata 1000  
ctaggatatt tgtttggcag caatagagcg gcaacaccct tctcagactc 1050  
gtggtactac ccgtcctatc ctccctccta ccctggcacg tggaataggg 1100  
cttactcacc ccttcatgga ggctcgggca gctattcggg atgttcaaac 1150  
tcagacacga aaaccagaac tgcacagga tatggtggta ccaggagacg 1200  
ataaagtaga aagttggagt caaacactgg atgcagaaat tttggatttt 1250  
tcatcacttt ctcttttaga aaaaagtact acctgttaac aattgggaaa 1300  
aggggatatt caaaagttct gtggtgttat gtccagtgtg gctttttgta 1350

ttctattatt tgaggctaaa agttgatgtg tgacaaaata cttatgtgtt 1400  
 gtatgtcagt gtaacatgca gatgtatatt gcagtttttg aaagtgatca 1450  
 ttactgtgga atgctaaaaa tacattaatt tctaaaacct gtgatgccct 1500  
 aagaagcatt aagaatgaag gtgttggtact aatagaaact aagtacagaa 1550  
 aatttcagtt ttaggtgggt gtagctgatg agttattacc tcatagagac 1600  
 tataatattc tatttgggtat tatattattht gatgtttgct gttcttcaaa 1650  
 catttaaatc aagcttttga ctaattatgc taatttgtga gttctgatca 1700  
 cttttgagct ctgaagcttt gaatcattca gtgggtggaga tggccttctg 1750  
 gtaactgaat attaccttct gtaggaaaag gtggaaaata agcatctaga 1800  
 aggttggtgt gaatgactct gtgctggcaa aaatgcttga aacctctata 1850  
 tttctttcgt tcataagagg taaagggtcaa atttttcaac aaaagtcttt 1900  
 taataacaaa agcatgcagt tctctgtgaa atctcaaata ttgttgtaat 1950  
 agtctgtttc aatcttaaaa agaata 1977

<210> 80

<211> 339

<212> PRT

<213> Homo Sapien

<400> 80

Met	Ala	Ala	Ala	Cys	Gly	Pro	Gly	Ala	Ala	Gly	Tyr	Cys	Leu	Leu
1				5					10					15
Leu	Gly	Leu	His	Leu	Phe	Leu	Leu	Thr	Ala	Gly	Pro	Ala	Leu	Gly
				20					25					30
Trp	Asn	Asp	Pro	Asp	Arg	Met	Leu	Leu	Arg	Asp	Val	Lys	Ala	Leu
				35					40					45
Thr	Leu	His	Tyr	Asp	Arg	Tyr	Thr	Thr	Ser	Arg	Arg	Leu	Asp	Pro
				50					55					60
Ile	Pro	Gln	Leu	Lys	Cys	Val	Gly	Gly	Thr	Ala	Gly	Cys	Asp	Ser
				65					70					75
Tyr	Thr	Pro	Lys	Val	Ile	Gln	Cys	Gln	Asn	Lys	Gly	Trp	Asp	Gly
				80					85					90
Tyr	Asp	Val	Gln	Trp	Glu	Cys	Lys	Thr	Asp	Leu	Asp	Ile	Ala	Tyr
				95					100					105
Lys	Phe	Gly	Lys	Thr	Val	Val	Ser	Cys	Glu	Gly	Tyr	Glu	Ser	Ser
				110					115					120
Glu	Asp	Gln	Tyr	Val	Leu	Arg	Gly	Ser	Cys	Gly	Leu	Glu	Tyr	Asn
				125					130					135

Leu	Asp	Tyr	Thr	Glu	Leu	Gly	Leu	Gln	Lys	Leu	Lys	Glu	Ser	Gly	140	145	150
Lys	Gln	His	Gly	Phe	Ala	Ser	Phe	Ser	Asp	Tyr	Tyr	Tyr	Lys	Trp	155	160	165
Ser	Ser	Ala	Asp	Ser	Cys	Asn	Met	Ser	Gly	Leu	Ile	Thr	Ile	Val	170	175	180
Val	Leu	Leu	Gly	Ile	Ala	Phe	Val	Val	Tyr	Lys	Leu	Phe	Leu	Ser	185	190	195
Asp	Gly	Gln	Tyr	Ser	Pro	Pro	Pro	Tyr	Ser	Glu	Tyr	Pro	Pro	Phe	200	205	210
Ser	His	Arg	Tyr	Gln	Arg	Phe	Thr	Asn	Ser	Ala	Gly	Pro	Pro	Pro	215	220	225
Pro	Gly	Phe	Lys	Ser	Glu	Phe	Thr	Gly	Pro	Gln	Asn	Thr	Gly	His	230	235	240
Gly	Ala	Thr	Ser	Gly	Phe	Gly	Ser	Ala	Phe	Thr	Gly	Gln	Gln	Gly	245	250	255
Tyr	Glu	Asn	Ser	Gly	Pro	Gly	Phe	Trp	Thr	Gly	Leu	Gly	Thr	Gly	260	265	270
Gly	Ile	Leu	Gly	Tyr	Leu	Phe	Gly	Ser	Asn	Arg	Ala	Ala	Thr	Pro	275	280	285
Phe	Ser	Asp	Ser	Trp	Tyr	Tyr	Pro	Ser	Tyr	Pro	Pro	Ser	Tyr	Pro	290	295	300
Gly	Thr	Trp	Asn	Arg	Ala	Tyr	Ser	Pro	Leu	His	Gly	Gly	Ser	Gly	305	310	315
Ser	Tyr	Ser	Val	Cys	Ser	Asn	Ser	Asp	Thr	Lys	Thr	Arg	Thr	Ala	320	325	330
Ser	Gly	Tyr	Gly	Gly	Thr	Arg	Arg	Arg							335		